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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/880,322	06/13/2001	Walter H. Runkis		5476

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EXAMINER

CLARDY, S

ART UNIT PAPER NUMBER

1616

DATE MAILED: 12/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/880,322

Applicant(s)

RUNKIS, WALTER H.

Examiner

S. Mark Clardy

Art Unit

1616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7-12 and 14-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,7-12 and 14-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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Claims 1-5, 7-12, and 14-26 are pending in this application which has also been filed as international application PCT/US02/18367.

Applicant's claims are drawn to:

1. Fertilizer compositions (claims 1-5) and methods of using them (7-12) comprising solution stable macronutrients¹ and micronutrients² (p. 4-7). The compositions may be formed by reacting (claim 4) any of various minerals, sulfamates (HSO_3NRR), and amine-sulfamates ($\text{R(NRR)}_n \cdot n \text{HSO}_3\text{NRR}$; $n = 1$ to 3).
2. Methods of treating living cells with the compositions (claims 14-20)
3. Methods of making the fertilizer compositions (claims 21-26).

Applicant has corrected the potentially duplicate claims, and canceled the claims that read on carbon dioxide.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1-5, 7-12, and 14-26 are again rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Newsom, Jr. (US 4,383,846), Woodhouse (US 2,237,826), Facer (US 2,739,886), and John Deere³.

¹includes both the conventional primary nutrients, NPK, and secondary nutrients, Ca, S, and Mg

²Fe, Mn, B, Zn, Cu, Mo, Cl, Na (for halites), Co, Ni

³John Deere. *Fundamentals of Machine Operation*. Chapter 2, "Fertilizers and Lime". P. 15-35. 1976.

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Newsom, Jr., again, teaches fertilizer compositions comprising ammonium and phosphate (column 3), and that N-substituted sulfamic acid derivatives are useful for stabilizing fertilizer compositions (col 4, lines 20-35).

Woodhouse, again, teaches the addition of sulfamic acid or salts thereof to fertilizer compositions comprising ammonium, phosphate, and other conventional fertilizer materials.

Facer, again, teaches that applicant's macronutrient and micronutrient components were known in the fertilizer art, and that such materials may be derived from naturally occurring minerals.

John Deere, again, teaches that it is conventional in the art to combine primary, secondary, and micronutrients in fertilizer compositions.

One of ordinary skill in the art would be motivated to combine these references because they disclose the utility of known fertilizer components in fertilizer compositions.

Thus it would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to have combined applicant's conventional fertilizer components in a single fertilizer composition because it is conventional in the fertilizer art to do so as taught in the prior art. Further, Newsom, Jr. teaches that the addition of applicant's sulfamic acid derivatives results in a stabilized composition. In using the compositions, they are necessarily applied to living plants and, therefore, living cells. Applicant argues that the compositions of the prior art do not involve reacting the components; however, inasmuch as the components are ionic species in solution, it would appear that reactions between the ionic species necessarily take place, particularly in view of the fact that indications of chemical reactions occur such as precipitations.

No unobvious or unexpected results are noted; no claim is allowed.

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Note that the last response was not signed. Please submit a signed copy with the next response.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Mark Clardy whose telephone number is 703-308-4550. The examiner can normally be reached on 7:20 - 3:50.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman Page can be reached on 308-2927. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.

A handwritten signature in black ink, appearing to read 'S. Mark Clardy', is positioned above the printed name and title.

S. Mark Clardy
Primary Examiner
Art Unit 1616

December 15, 2003